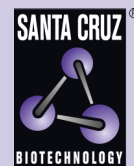


# ZNF143 (L-26): sc-100983



The Power to Question

## BACKGROUND

Zinc finger proteins contain DNA-binding domains and have a wide variety of functions, most of which encompass some form of transcriptional activation or repression. ZNF143 (zinc finger protein 143), also known as SBF, STAF or pHZ-1, is a 626 amino acid protein that contains seven C<sub>2</sub>H<sub>2</sub>-type zinc fingers and belongs to the GLI (glioma-associated oncogene) C<sub>2</sub>H<sub>2</sub>-type zinc finger family. Localized to the nucleus and expressed ubiquitously with highest expression in ovaries, ZNF143 functions as a transcriptional activator that, via its C<sub>2</sub>H<sub>2</sub>-type zinc domains, binds to the SPH motif found in the promoters of small nuclear RNAs (snRNA). Through its ability to bind the promoters of various snRNA genes, ZNF143 controls the subsequent expression of the corresponding protein products. ZNF143 expression is induced upon DNA damage, suggesting an important role for ZNF143 in DNA repair events.

## REFERENCES

1. Myslinski, E., et al. 1998. ZNF76 and ZNF143 are two human homologs of the transcriptional activator STAF. *J. Biol. Chem.* 273: 21998-22006.
2. Rincon, J.C., et al. 1998. Molecular cloning of a cDNA encoding human SPH-binding factor, a conserved protein that binds to the enhancer-like region of the U6 small nuclear RNA gene promoter. *Nucleic Acids Res.* 26: 4846-4852.

## CHROMOSOMAL LOCATION

Genetic locus: ZNF143 (human) mapping to 11p15.4; Zfp143 (mouse) mapping to 7 F1.

## SOURCE

ZNF143 (L-26) is a mouse monoclonal antibody raised against recombinant ZNF143 of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

ZNF143 (L-26) is recommended for detection of ZNF143 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for ZNF143 siRNA (h): sc-97004, ZNF143 siRNA (m): sc-155641, ZNF143 shRNA Plasmid (h): sc-97004-SH, ZNF143 shRNA Plasmid (m): sc-155641-SH, ZNF143 shRNA (h) Lentiviral Particles: sc-97004-V and ZNF143 shRNA (m) Lentiviral Particles: sc-155641-V.

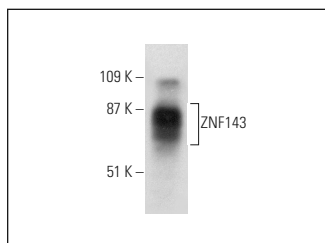
Molecular Weight of ZNF143: 68 kDa.

Positive Controls: HeLa nuclear extract: sc-2120 or Jurkat nuclear extract: sc-2132.

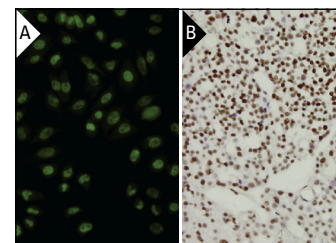
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



ZNF143 (L-26): sc-100983. Western blot analysis of ZNF143 expression in Jurkat nuclear extract.



ZNF143 (L-26): sc-100983. Immunofluorescence staining of paraformaldehyde-fixed HeLa cells showing nuclear localization (A). Immunoperoxidase staining of formalin-fixed, paraffin-embedded human ovary, clear cell carcinoma tissue showing nuclear localization (B).

## SELECT PRODUCT CITATIONS

1. Paek, A.R., et al. 2019. The role of ZNF143 in breast cancer cell survival through the NAD(P)H quinone dehydrogenase 1-p53-beclin1 axis under metabolic stress. *Cells* 8: 296.
2. Kim, Y., et al. 2019. A mutation in ZNF143 as a novel candidate gene for endothelial corneal dystrophy. *J. Clin. Med.* 8: 1174.
3. Zhang, L., et al. 2020. ZNF143-mediated H3K9 trimethylation upregulates Cdc6 by activating MDIG in hepatocellular carcinoma. *Cancer Res.* 80: 2599-2611.
4. Collins, J.M., et al. 2021. ESR1 ChIP-Seq identifies distinct ligand-free ESR1 genomic binding sites in human hepatocytes and liver tissue. *Int. J. Mol. Sci.* 22: 1461.

## STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.